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ABSTRACT

Because of a documented need for more and better trained vocational education teachers, including those from industry, an alternative approach to teacher preparation, called performance-based teacher education (PBTE), was developed. PBTE is an approach to instructor preparation in which (1) the training program is based on the competencies (specific job tasks) required of successful vocational and technical instructors, and (2) the instructor must not only obtain certain knowledge but is also required to demonstrate the essential teaching skills in an actual instructional situation. The modules provide essential elements and desirable characteristics for each skill area. They were developed following research on teacher competencies. The module development process was structured to ensure maximum involvement of persons representing all occupational areas who were actively engaged in vocational instructor preparation. The modules were designed to be used by individuals or groups of teacher-trainees or inservice instructors. They provide learning experiences that integrate theory and application and culminate with assessment, and they are flexible. The modules were field tested, revised, and retested. They are now in use in many college and universities as well as in staff development programs. (An overview of some of the programs in which the PBTE modules are being used is included in this paper.) (KC)

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PERFORMANCE-BASED TEACHER EDUCATION

and

COMPETENCY-BASED STAFF DEVELOPMENT:

PROGRAMS THAT REALLY WORK

Canadian Vocational Association Conference

Toronto, Ontario

June 11, 1989

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TEACHER TRAINING

The training of teachers[1] has long been recognized as a national, as well as an international, concern. During the 1960s and 1970s, there was general dissatisfaction with many of the teacher/instructor training programs in the United States. Many of these programs tended to emphasize the theory of teaching rather than focusing upon the instructional skills needed to be successful on the job. Some states still lack adequate numbers of vocational instructors who possess both the technical and professional skills needed to be a successful instructor.

Many postsecondary training institutions are recruiting highly qualified technical experts from industry as part-time or full-time instructors. Unfortunately, many of these persons are thrust into instructional roles with very little, if any, professional preparation. When these experts do not possess the teaching skills required to be successful, some excellent potential instructors quit their jobs out of sheer frustration. Most of our vocational, technical, and industrial training centers have found that "teaching skills require just as much care and fine tuning as technical and mechanical skills."

On the international scene, it is also quickly apparent that the training of teachers is high on the list of factors needing attention if the human resources of most countries are to be effectively utilized. Two brief citations will serve as examples of this need:

- The members of the Technical Committee of APSDEP, meeting in Manila in July 1979, agreed that the "training of key personnel, particularly trainers and instructors, was an area of primary concern. The representatives of the governments expressed a willingness to share whatever expertise and experience they possess in regard to training systems, materials, and facilities through APSDEP."[2]
- "A priority amongst the needs which ILO is called upon to satisfy is the need for training at all levels. Whilst Asia and the Pacific possess the manpower required for carrying out the tasks of economic and social development, they suffer from a shortage of trained people and training expertise without which their human resources cannot be effectively utilized."[3]

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1. The terms instructor, trainer, and teacher are considered to be synonymous in this paper.

2. H. S. N. Murthy Rao, Regional Training of Trainer Trainers on a TCDC Basis (Madras, India: Advanced Training Institute, October 1983).

3. Andre Aboughanem, Training of Trainers in Asia and the Pacific (Turin, Italy: International Center for Advanced Technical and Vocational Training, February 1982).

Granted that there is a worldwide need for effective instructor training programs, what are some of the specific instructor training needs that must be addressed? Information available from both research and practical experience suggests at least the following specific needs:

1. The need for more, and more competent, instructors in many occupational areas. The shortage of qualified instructors in some occupational areas is a severe handicap to the social and economic development of some countries.

2. The need for instructor training programs that are based on the actual job requirements of the trainers and instructors. Too many courses and workshops for instructors are still emphasizing theoretical concepts in hopes that the trainees will, largely on their own, be able to apply those concepts to practical instructional situations.

3. The need for instructor evaluations that are performance-oriented rather than knowledge-oriented. Most often, instructor trainers have assessed instructors' teaching skills using primarily cognitive and norm-referenced assessment methods. There is a false assumption inherent in that approach, however: The instructor who knows about the teaching process will not automatically be able to perform effectively in the classroom and shop.

4. The need to provide instruction that can be tailored to the individual needs of the instructor in training. Educators have long been aware of the need to individualize the learning process in order to accommodate each trainee's needs. While instructor trainers often tell the instructors they must individualize instruction for their trainees, their own classes are all too often conducted in a large- group, lockstep manner.

5. The need to provide instruction that allows for a variety of realistic learning experiences and options. Different instructors have different learning styles and learning preferences; hence, it is important to provide for alternative learning experiences whenever possible.

6. The need for instruction that provides immediate and frequent feedback to the learner. The instructor needs to know how well he or she is progressing toward achieving the necessary teaching skills on a regular, almost daily, basis.

7. The need for instruction that holds both the instructor trainer and the instructor trainee accountable. If both persons are important to the learning process, as most would agree, then they obviously share responsibility for the learning that should occur.

8. The need for instruction that is both cost-efficient and maximally effective. Training is costly, so program effectiveness and efficiency need to be enhanced by focusing on actual requirements of the instructor's job--those competencies essential to the training/teaching function.

Given the needs outlined, it is apparent that the conventional approach to instructor training will not suffice. Many traditional and time-honored practices need to be replaced by a more scientific and systematic approach to instructor training.

To address these needs and other issues related to the training of technical and vocational teachers, the remainder of this paper will address the following major topics:

- Development of PBTE as a response
- Research on teacher competencies
- Development of teacher training curricula
- Alternative teacher training schemes and modules
- Effects of competency-based teacher training
- Occupational competency testing of teachers

Development of PBTE as a Response

To respond to these demanding teacher training needs, staff at the Center for Research in Vocational Education developed, with federal government support, an alternative approach to teacher/instructor preparation called performance-based teacher education (PBTE).

PBTE is an approach to instructor preparation in which (1) the training program is based on the competencies (specific job tasks) required of successful vocational and technical instructors and (2) the instructor must not only obtain certain knowledge but is also required to demonstrate the essential teaching skills in an actual instructional situation.

There are five essential elements and seven desirable characteristics[4] that serve to establish the operational framework for any PBTE program. The essential elements are as follows:

- Competencies to be achieved by the instructors are carefully identified, verified, and made public in advance.
- Criteria to be used in assessing achievement and the conditions under which achievement will be assessed are explicitly stated and made public in advance.
- Assessment of competency takes the instructors' knowledge and attitudes into account but depends upon actual performance as the primary source of evidence.

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4. The essential elements and desirable characteristics presented here are adapted from Achieving the Potential of Performance-Based Teacher Education Recommendations (Washington, DC: American Association of Colleges for Teacher Education, 1974).

- The instructional program provides for the individual development and evaluation of each of the competencies specified.
- Trainees progress through the instructional program, at their own pace, by demonstrating the attainment of specified competencies.

The additional elements--the desirable characteristics--associated with most PBTE programs may include any or all of the following:

- Instruction is individualized to the maximum extent possible.
- Learning experiences are guided by immediate feedback.
- Emphasis is on meeting exit requirements.
- Instruction is individually paced rather than time-based.
- Instruction is, to a considerable extent, field-centered.
- Instruction is often modularized and uses materials with both required and optional learning activities--to achieve flexibility and provide for various learning styles.
- The program as a whole is carefully planned and systematic.

Research on Teacher Competencies

The first question that needed to be answered was, What teaching skills does a person need to possess in order to be an effective vocational-technical teacher? Under the sponsorship of the U.S. Office of Education, the Center began work in 1967 to determine the professional competencies required of vocational instructors. Approximately 1000 vocational instructors, instructional supervisors, and teacher trainers were involved in the initial identification and verification of 384 job tasks considered important for vocational instructors in the various occupational areas of concern. The 384 job tasks were then clustered into ten categories representing major areas of instructional responsibility.

The initial teacher competency identification research base has been added to four times since 1974. In 1979-81, research was conducted using the DACUM (Developing A Curriculum) job analysis procedure to identify the competencies needed by teachers who work with students having some type of special or exceptional need (e.g., handicapped, disadvantaged).

During 1981-82, two additional areas of concern were again addressed using the DACUM job analysis procedure. The areas researched included the competencies needed by teachers who needed to help their students further develop their basic skills (reading, writing, speaking, computing) and the competencies needed by teachers who were wanting to implement competency-based education.

Finally, in 1985, research was conducted to identify and nationally verify the competencies important to successful teachers of adults. Again, the DACUM process was utilized.

Development of Teacher Training Curricula

Given this research base, the Center, under sponsorship of the U.S. Office of Education, initiated development of a comprehensive set of curricular materials that would meet the training needs of vocational instructors and incorporate the essential elements of PBTE. The materials that resulted from this endeavor are products of a sustained research and development effort that has focused upon the actual preparation needed by persons who expect to teach with optimum effectiveness.

Nature of materials. The curricular materials are in the form of individualized learning packages, or modules, each of which has as its base one or more of the competencies identified and nationally verified. By basing the modules on the identified competencies, there is assurance that the objectives of the modules represent competencies actually needed by vocational instructors, at both the secondary and postsecondary levels, and in all occupational areas.

Each module provides learning experiences that integrate theory and application; each culminates with criterion-referenced assessment of the instructor's performance of the specified competency. The materials are designed for use by individuals or groups of teachers/instructors working under the direction and with the assistance of instructor trainers or other professional staff acting as resource persons.

The design of the materials provides considerable flexibility for planning and conducting performance-based preservice and inservice instructor training programs to meet a wide variety of individual needs and interests. The materials are intended for use by universities and colleges, state departments of education, postsecondary institutions, local education agencies, and others responsible for the professional development of vocational teachers or instructors.

Module development. The module development process was structured to ensure maximum involvement of persons representing all occupational areas and who were actively engaged in vocational instructor preparation. Each module was originally developed in cooperation with vocational instructor trainers at Oregon State University, Corvallis, and University of Missouri-Columbia. Center staff also worked on-site with the module writing teams.

A system of development, review, and revision was followed by the writing teams at each of these sites during the initial module development. Following development of each module to the satisfaction of the faculty at the site, the module was then forwarded to the other university for review and critique by its faculty. Each module also underwent review and critique by Center staff. Then a synthesis of all faculty and staff reviews was developed, and the module was revised by Center staff.

Preliminary testing and revision. Initial testing of the PBTE materials was carried out during 1973-74 at Oregon State University, University of Missouri-Columbia, and Temple University. Each of the modules was used by a

minimum of ten preservice and/or inservice vocational instructors at one or more of the test sites. Reaction forms were completed by each instructor for each module used and by each instructor trainer (resource person) for each module he or she administered. In addition, in-depth taped interviews were conducted to clarify and gain additional feedback from instructors and resource persons for a sampling of the modules tested. Several individual modules and entire categories of modules were also reviewed and critiqued by independent consultants and subject matter experts during this phase of the project.

Using the inputs from instructors, resource persons and consultant reviews, each of the modules underwent a major revision of content and format. The typical instructional sequence for Center modules, which reflects the revised format, is illustrated in Figure 1. This major revision was initiated by Center staff during the summer of 1974, with completion occurring in the spring of 1976.

Advanced testing. Initially, three advanced testing sites were selected and testing began during the winter of 1975. During the spring and summer of 1975, advanced testing was also initiated at four self-sponsored sites. In the fall, ten additional advanced testing sites were added through U.S. Office of Education sponsorship of a National Institute for PBTE.

From 1975 through 1976, advanced testing of the materials was conducted at the 17 sites, representing wide geographic areas and settings as well as several differing PBTE program structures. Feedback was gathered from each trainee and each resource person using the modules to further improve the materials and to document their effectiveness. More than 2,500 preservice and inservice instructors and 250 instructor trainers and other resource persons participated in the testing and provided feedback to the Center. This user feedback provided information concerning the characteristics of the user and how well the materials served his/her needs.

Advanced testing data showed the modules to be highly effective in developing the specified competencies in both preservice and inservice training programs. Pre/post-estimates of instructor trainee performance showed increases in ability to perform the specified competency for each of the 100 modules. Furthermore, these increases were statistically significant at the .01 level of confidence for 98 of the 100 modules. Further, the subjective reactions of both instructor trainers and trainees regarding the quality and utility of the materials were highly positive.

Refinement, publication, and dissemination. The Center completed an agreement for commercial publication of the PBTE materials in mid-1976. At that time, the publisher, American Association for Vocational Instructional Materials (AAVIM), and Center staff jointly determined the final format of the materials. The publisher initiated incremental release of published materials in March 1977, with release of the last materials occurring in summer 1978.

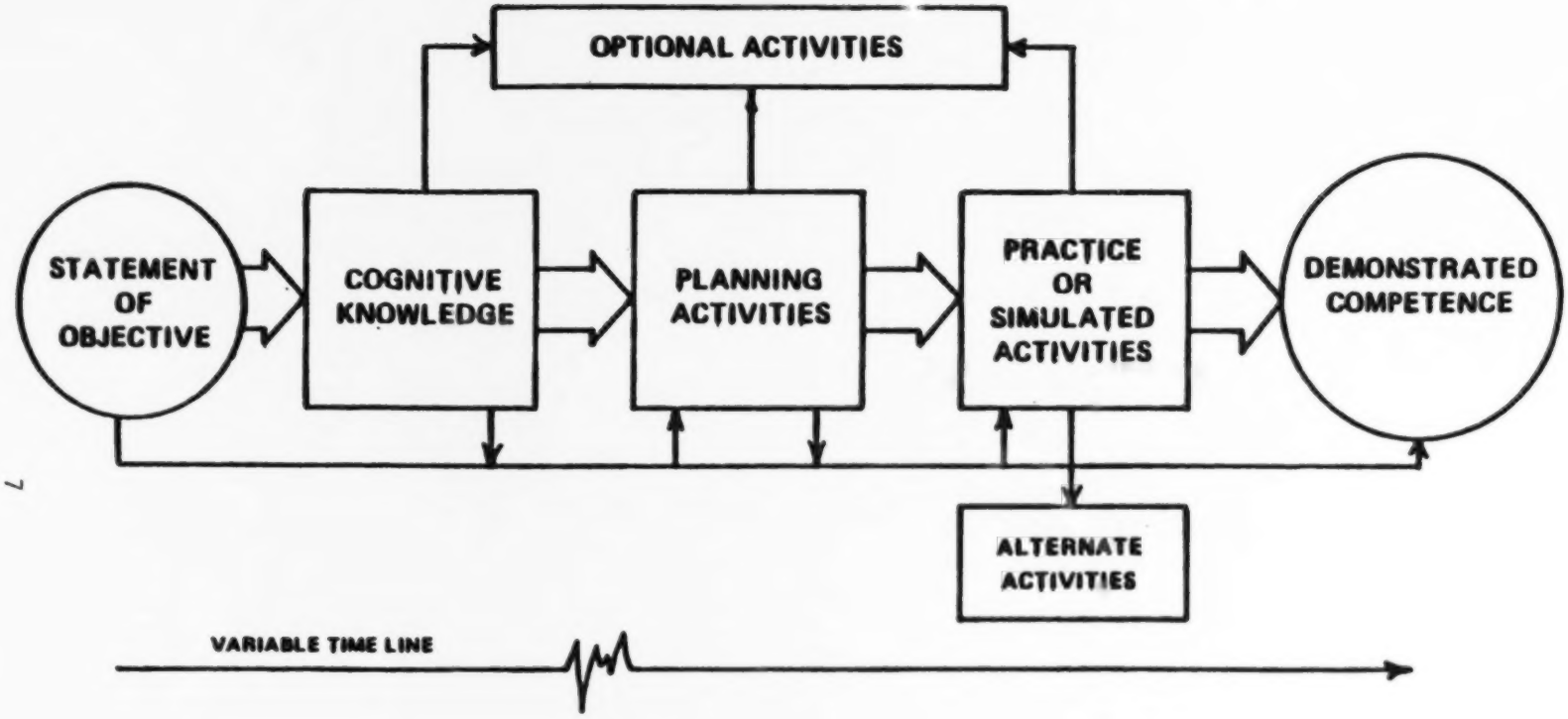

Figure 1. Typical Instructional Sequence for Center Modules

The Center's curricular materials consisted initially of 100 PBTE modules, clustered into 10 categories, and related supportive materials. Since 1982, 32 additional modules in 4 additional categories have been prepared. See Attachment A for a complete listing of the 14 categories, 132 modules, and 4 support documents.

Joint dissemination activities have been and continue to be carried out by the Center, by the publisher, and through federal, state, and regional sponsors to provide orientation and training for effective implementation and use of the PBTE curricular materials.

In a performance-based training program, the resource person (instructor trainer, instructional supervisor, staff development coordinator, etc.) has a unique and essential role to perform. This role, which includes the functions of serving as advisor, facilitator, and assessor, is very different from the traditional roles performed by instructor trainers and staff development leaders.

The Center's field-testing and training experience with many different educational institutions repeatedly reinforced the need for the adequate training of PBTE users. Hence, both the developer and publisher strongly recommend that institutions or other agencies or countries planning to use these materials arrange for the provision of adequate training to ensure the most effective use of the materials and concepts.

In a recent article entitled "The Importance of Teacher Training," Henry W. Puzio, Training Officer for Lincoln Technical Institute in Union, New Jersey, stated:

> In early 1986, Lincoln schools decided to implement the Performance-Based Teacher Education Program for the development and training of newly hired instructors. Further, it is used as a tool for refining the skills of the veteran instructor.
>
> The key to the program's success is the resource person. It is important that this individual be totally familiar with the PBTE training process, motivated and committed to the goals and objectives of the program. It is also important that the instructional staff understands the value of PBTE and the benefits that can be derived from it.
>
> In the final analysis, a viable teacher training program is extremely beneficial to the success of our schools and our students.[5]

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5. Henry W. Puzio, "The Importance of Teacher Training," Career Training, Journal of the National Association of Trade and Technical Schools, Vol. 3, No. 3 (March 1987), p. 26.

Alternative Teacher Training Schemes and Models

Full-scale implementation, as well as partial implementation, of the PBTE concepts and materials has occurred at many public and private agencies across the United States. Vocational teachers and instructors, industrial trainers, staff development coordinators, local and state supervisors, and many others involved in the professional preparation of persons for teaching roles at all levels are using the materials.

In addition, more than 3,000 different agencies and over 1,500 individuals have purchased the modules, including over 1,700 educational agencies and over 425 business and industrial firms. The primary users have been colleges and universities, which represent 56 percent of the total sales.

All 50 states, five U.S. territories, 11 Canadian provinces, and 40 other foreign countries also have purchased the materials. Because of the international demand for the materials, distributorships have been established in the United Kingdom, Australia, and Pakistan.

The materials are being used mainly by (1) training institutions concerned with preservice and inservice teacher/instructor preparation and (2) private and public agencies concerned primarily with staff development or the inservice training of instructors.

Teacher education use. As one might expect, the most extensive use of PBTE concepts and materials in the United States is occurring in the colleges and universities that have teacher preparation as one of their major responsibilities. Of the 1,700 educational agencies that have ordered the modules, 425 are colleges and universities. Some of these institutions use the materials primarily in their preservice programs, while others use them more in their inservice courses and workshops.

Major use has occurred in what might be described as a "blending" approach whereby selected modules are substituted for specific units of a given course. Extensive use has also occurred in "total course substitution" approaches whereby one or more courses are taught in a performance-based manner using a cluster of modules as an alternative to lectures. In several institutions, all the professional preparation required of teachers is offered through a "total program conversion" to the use of PBTE concepts and materials.

Staff development use. The use of PBTE materials by organizations other than colleges and universities for staff development or inservice training represents 42 percent of total module sales. The major users in this category are as follows:

- Public and private secondary schools
- Public and private postsecondary institutions (two-year)
- State education agencies

- Business, industry, and labor organizations
- Noneducational government agencies

In the over 800 secondary schools and the over 600 postsecondary institutions purchasing the materials, the modules are used in staff development programs run by the institution itself. Frequently, they are used with part-time, as well as full-time, instructors to help them acquire critical teacher "survival skills," and in some states to meet certification requirements.

Most of the 50 state departments of education have purchased either sets of the modules for placement in area vocational school staff libraries and/or quantities of individual modules for use in local-, regional-, and state-level teacher inservice education workshops.

In addition to the educational agencies, more than 450 businesses, industries, and labor groups are using the modules as part of their instructor training programs. The materials have been purchased by such well-known companies as Caterpillar Tractor, General Electric, International Business Machines, Kodak, Mobil Oil, Sears and Roebuck, Union Carbide, and United Airlines. Among the noneducational government users are the U.S. military, state and federal corrections and law enforcement agencies, and the U.S. Department of Agriculture's forest and soil conservation service.

An Overview of Selected PBTE/CBSD Programs

Brief descriptions of some of the applications of PBTE/CBSD principles and materials in different types of institutions are presented here.

- PBTE in Colleges/Universities

  Temple University's Program VITAL (Vocational Intern Teaching Applied Learning)

  Initial vocational certificate requires completion of 30 PBTE modules. Senior teacher educators, field resource persons, resident resource persons, inservice teachers at secondary schools, and intern teachers participate in the program. See Attachment B for more detail of this long standing program that has served as a model for many others.

  Indiana University of Pennsylvania's Center for Vocational Personnel Preparation

  This field-based performance-based vocational teacher education program is based on Temple's model and serves both preservice and inservice vocational teachers. All the PBTE modules are used.

  University of Central Florida

  PBTE is used for inservice and preservice teachers, with an 85 percent inservice focus. Geographical area served includes rural, sparsely

populated counties, and the individualized program is adaptable to a field-based setting. Both undergraduate and graduate level programs use the modules. See Attachment C for more information about this program.

University of Alaska, Juneau

PBTE modules are used in the vocational education master's degree program, with a minimum of nine credit hours required in PBTE. The program serves teachers in all areas of this vast state through the use of resident resource persons and university-based field resource persons.

- CBSD in Community Colleges/Industry

Albuquerque Technical/Vocational Institute

PBTE has been integrated into their institutional Professional Development Plan. All teachers hired must demonstrate proficiency in 41 selected modules. The University of New Mexico's Department of Secondary and Adult Education works cooperatively with the Institute. See Attachment D for more information on how PBTE concepts and materials are used by this Institute.

Holland College, Charlottetown, P.E.I.

Holland College has a staff development program involving all of its faculty, administrators, and support staff. The competenceies for the instrutor development program have been identified through the use of a DACUM job analysis, which resulted in the identification of 251 competencies on their Learning Management DACUM chart for instrutors. The competencies identified closely resemble those on which the Center's PBTE modules are based.

- Statewide Programs

Arkansas

Certification requirements were established in April 1983 for all post-secondary vocational instructors. PBTE modules are the basis for the program, and all instructors must eventually acquire or demonstrate the competencies for the senior instructor level. A career ladder and merit pay system is an integral part of this statewide professional development program. Participation of instructors in this program is a condition of employment. Persons employed must progress as follows:

Provisional Instructor	→	Instructor	→	Senior Instructor	→	Master Instructor
11 modules required		31 modules required		33 additional modules		36 additional modules

Instructors who desire to remain at the Senior Instructor level may do so. Advancement to each higher grade also requires successful teaching experience and additional technical work experience.

Washington

The State Board for Community Colleges established a performance-based vocational teacher education plan for all its postsecondary institutions in 1979. An inservice training program to prepare resource persons was designed and implemented.

- Adoption by National Associations

NATTS (National Association of Trade and Technical Schools)

In 1979, NATTS recommended to its 1,000 member institutions an instructor training program of 21 PBTE modules, selected to provide the core of teaching skills needed in program planning, instructional planning, execution, evaluation, and management.

NATTS believes that professional development is an ongoing process; one that takes time and energy. As part of the NATTS commitment to the professional development process, three levels of recognition had been established for instructors at member schools who have completed PBTE modules.

Level I

Any instructor whose school has verified that the instructor has successfully completed 16 PBTE modules--including 11 modules from the 21 recommended by NATTS--will receive a Level I Professional Achievement Award from NATTS.

Level II

An instructor whose school has verified that the instructor has successfully completed 25 PBTE modules--including 11 modules from the 21 recommended by NATTS--will receive a Level II Professional Achievement Award from NATTS.

Level III

Any instructor whose school has verified that the instructor has successfully completed 40 PBTE modules--including 11 modules from the 21 recommended by NATTS--will receive a Level III Professional Achievement Award from NATTS.

Effects of Competency-Based Teacher Training

Educators frequently ask questions such as the following: What evidence is there that PBTE works any better than (or as well as) conventional teacher education and staff development programs? Why should we change to the PBTE approach unless there is significant evidence that it is better than what we are now doing? These are fair and legitimate questions. While the research needed to answer those questions conclusively is complex, expensive, and fraught with difficulty, some answers are now becoming increasingly clear.

Four types of positive effects of PBTE have been reported by Adams, MacCay, and Patton[6] and by Bill Weaver (NATTS study) as follows: (1) effects on teacher education programs, (2) effects on staff development programs, (3) effects on teachers and instructors, and (4) effects on students and classrooms.

Teacher education. Traditional teacher education has been content-based, time-based, group-paced, focused on the needs of the group, course-oriented, classroom-based, norm-referenced, instructor-centered, textbook-focused, based on general objectives, and has relied on subjective assessment criteria.

However, those who are being trained as instructors need to be able to apply what they learn to the situations they encounter, and their training must be based on actual job requirements rather than theory. Evaluations should be based on their performance in those situations. In addition, student instructors need to experience individualized instruction themselves in order to make use of its principles in their own teaching. PBTE is meeting these needs.

Teacher training institutions using PBTE cannot easily fit students into a general pattern. PBTE's emphasis is more on what abilities the students demonstrate at the end of the program than on what may be required for their entrance into the institution. Students are allowed to take varying amounts of time to attain mastery, and opportunities are given for them to "test out of" some competencies and proceed with the modules for the skills they need to work on.

According to the Adams study, PBTE has been especially effective in changing teacher education programs. It has accomplished the following:

- Increased the accountability of teacher training programs.
- Increased instructors' access to teacher training by providing self-contained instruction especially useful in rural and/or isolated areas.
- Increased the flexibility of teacher training in terms of getting the training to the right instructor at the right time.
- Increased the productivity of teacher training programs by shortening the time required to certify vocational teachers.
- Reduced the variability and added cohesiveness to the content of vocational instructor training curricula through standardization of the skills vocational instructors are required to master.
- Significantly changed the role of the university trainer from a university-based classroom lecturer to a field-based learning facilitator working with instructors on a small-group and one-to-one basis.

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6. Kay A. Adams, Brenda MacKay, and Michael Q. Patton, The Impact of the Center's Performance-Based Teacher Education Curriculum (Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University, 1980).

Staff development. The number of community and junior colleges in the United States grew from 678 in 1960 to 1,230 in 1975. These two-year institutions serve an increasing number of students from nontraditional backgrounds, including unemployed, disabled, senior citizens, women taking courses that have not been traditional for women (i.e., trades and technology), parolees and part-time students. The prescribed curricula may be irrelevant to these students. The influx of nontraditional students has pointed to the need for nontraditional instruction. CBSD helps the staff of these institutions respond to the needs of a changed student body.

In recent years the emphasis on vocational/technical education in post-secondary institutions has increased. Many instructors in these two-year schools are hired directly from industry and have expertise in a specific area, but need to acquire a variety of teaching competencies. PBTE/CBSD is effective for training these instructors and can help them immediately.

In 1982, NATTS surveyed those who had attended CBSD workshops. Of responses from 77 institutions, 71.4 percent had established CBSD programs, and of those, 45.4 percent had mandatory requirements for at least some of the teachers. A total of 64.3 percent felt their programs to be successful or very successful. Those with successful programs stated emphatically that the teaching staff had gained greater awareness and knowledge of teaching techniques. More than half noted a decrease in students' complaints about teachers.

More than 450 noneducational agencies, in the areas of business, industry, labor, government, and the military, have purchased PBTE modules and find them an efficient way to train personnel. For example, the nuclear facility in Seabrook, New Hampshire, has two staff development meetings a month, making use of the modules. Neal Wiggin of the facility commented, "Developing instructor competency is as important as developing operation and technical quality."

Teachers/instructors. Traditionalists insist that teaching is greater than the sum of its parts and worry that PBTE may reduce teaching to a series of sometimes trivial operations. Some say that working with modules is dull and neglects human interaction. Such critics forget that many aspects of traditional training of teachers were dull for both the educator and the student. Some educators prepared lectures and tests in isolation. In their new roles as resource persons they tutor, facilitate, advise, counsel, and assess. They spend less time preparing lectures, writing and grading tests and conducting large-group discussions. Many find more human interaction in a PBTE program than in a traditional one.

The transition is not an easy one for educators who have already developed their own methods and styles. They have to change the way they manage their time and resources in order to match the individual needs of their students with resources and keep records of individual progress. But their comments show that they find PBTE effective and satisfying.

The effects of PBTE on vocational teachers and instructors cited by Adams are as follows:

- Increased competency in teaching, especially in the areas of instruction planning, organizing content into units of instruction, student reinforcement, individualizing instruction, and student performance evaluation.
- Increased instructors' responsibility for their own learning and their ability to be self-evaluative.
- Increased the instructors' convenience in obtaining certification.
- Increased instructors' personal contact with instructor training faculty.
- Increased instructors' confidence in themselves, because they are more certain of what they can do.

Classrooms and students. Students and their classrooms have also been affected by PBTE in the following ways:

- Improved communication between training institutions and local school districts.
- Increased use of competency-based techniques by teachers with their own students because instructors teach the way they are taught.
- Improved performance of local school administrators in evaluating teachers.

Reactions of Users

Many administrators and resource persons who have used the PBTE concepts and materials have offered very positive comments about their effects on both teachers and their students. The following verbatim unsolicited comments are presented to share the types of reactions that have been received from many users at various institutions throughout the U.S. and a couple of international users.

"All teachers feel that not only have they benefited from the program, but so have the students." (Catherine Vatterott, St. Louis Education Center)

"The entire program has measurably improved our teacher performance--so much that our student success levels have risen from past averages." (Stanley Warshaw, Rutland, Vermont)

"The PBTE modules are the best source of teacher education pedagogy content available." (Edward Brower, Coordinator, College of Education, Temple University)

"I purchased a full set of modules from your Australian distributor and have used them extensively in international work in Southeast Asia . . . most valuable . . . a major contribution." (G. R. Meyer, Continuing Education, Macquarie University)

"My course in curriculum was greatly enhanced through use of PBTE materials." (Dan Fahrlander, National Taiwan Normal University)

"I believe the modules are excellent." (Roger Hess, Bell & Howell Education Group, Inc.)

"Recent workshop at Southern Illinois University a success . . . confirmed the value of competency-based approach in teacher preparation." (Richard Bortz, Occupational Education, Southern Illinois University at Carbondale)

"Excellent PBTE series." (Home Builders Institute)

"All modules are extremely well-written and organized. PBTE is an excellent vehicle for providing a structured, systematic program . . . Recommend full implementation to any vocational education institution . . . Many can be used in industrial training." (James Gordon, Senior Training Analyst, Alabama Power)

"Impressed with the quality, style, and relevancy." (Betty Poindexter, Austin E. Walker Center for Career Education)

". . . excellent work in developing teacher education packages. I intend to use them consistently." (John Nevins, Director, Occupational Education, State College at Westfield, Massachusetts)

"Very worthwhile." (Floyd Rasmussen, College of Hair Design, Lincoln, Nebraska)

"The CBSD modules are self-contained and well-planned. Workshops offer specific information and ideas on how to tailor the presentation of the modules to meet specific needs. Outstanding combination." (James Scapillato, Washington Technical Institute, Seattle, Washington)

"The new instructors feel more confident in the classroom. The more experienced teachers like being reminded of some of the techniques or 'tricks' they may have forgotten over the years. All teachers feel that not only have they benefited from the program, but so have the students." (Catherine Vatterott, Vatterott & Sullivan Educational Centers. St. Louis, Missouri)

". . . the answer to our upgrading instructors' capabilities." (Robert F. Sweitzer, Airco Technical Institute, Pittsburgh, Pennsylvania)

"The entire program has measurably improved our teacher performance--so much that our student success levels have risen from past averages." (Stanley Warshaw, U.S. School of Professional Paperhanging, Rutland, Vermont)

"The two most attractive aspects of this program are its flexibility in design so that I am able to utilize this program to suit the particular needs of each faculty member and its flexibility in time demands so that much of the preparation exercises are done IN THE CLASSROOM SITUATION which does not unduly encumber their outside classroom preparation time." (Jeanne Semer-Purzycki, Travel School of America, Newton Centre, Massachusetts)

Summary

The Center's PBTE materials have been widely adopted and have had a marked impact on vocational instructor training and staff development programs. The PBTE materials are more widely utilized than any other of the many products produced by the Center on Education and Training for Employment.

It is believed that the availability of high-quality, research-based, and field-tested materials, coupled with the logical promise of the essential elements and desirable characteristics of PBTE programs, have significantly increased the responsiveness of teacher and instructor training programs to the needs of their clientele. It is known that the cooperative development procedures, extensive field testing, and the numerous institutional, state, regional, and national workshops conducted to train resource persons contributed significantly to the dissemination of the concepts and materials and implementation of PBTE programs.

There is considerable evidence that PBTE programs are having a long-term impact on improving the quality and competence of vocational teachers and instructors. By providing a flexible and more individualized program, PBTE has enabled teachers to progress at their own best rate to achieve mastery of the desired competencies. It has also increased the productivity of some teacher education programs by shortening the time required for certification.

Since the Center's PBTE efforts have met with success, it will not surprise anyone to learn that additional materials are being developed using the same basic research, development, and dissemination methodology. Work in performance-based teacher education has continued through the development of the four new categories of PBTE modules, as well as through the revision of the original 100 modules to update their content and improve their graphics.

A multistate consortium effort is also supporting the development of competency-based modules designed specifically for the preparation of local administrators of secondary and postsecondary vocational programs. Development work has also been initiated for developing performance-based materials specifically designed for instructors within industry.

PBTE concepts and materials provide a promising alternative to the more conventional methods of instructor and leadership personnel training. We at the Center stand ready and anxious to help persons in any country or region who wish to receive training in the implementation of PBTE concepts and materials, technical assistance in program design and operation, or assistance in the translation and/or adaptation of materials for use in any appropriate instructional environment.

Attachment A

Titles of the Center's Performance-Based Teacher Education Modules

Category A: Program Planning, Development, and Evaluation
- A-1 Prepare for a Community Survey
- A-2 Conduct a Community Survey
- A-3 Report the Findings of a Community Survey
- A-4 Organize an Occupational Advisory Committee
- A-5 Maintain an Occupational Advisory Committee
- A-6 Develop Program Goals and Objectives
- A-7 Conduct an Occupational Analysis
- A-8 Develop a Course of Study
- A-9 Develop Long-Range Program Plans
- A-10 Conduct a Student Follow-Up Study
- A-11 Evaluate Your Vocational Program

Category B: Instructional Planning
- B-1 Determine Needs and Interests of Students
- B-2 Develop Student Performance Objectives
- B-3 Develop a Unit of Instruction
- B-4 Develop a Lesson Plan
- B-5 Select Student Instructional Materials
- B-6 Prepare Teacher-Made Instructional Materials

Category C: Instructional Execution
- C-1 Direct Field Trips
- C-2 Conduct Group Discussions, Panel Discussions, and Symposiums
- C-3 Employ Brainstorming, Buzz Group, and Question Box Techniques
- C-4 Direct Students in Instructing Other Students
- C-5 Employ Simulation Techniques
- C-6 Guide Student Study
- C-7 Direct Student Laboratory Experience
- C-8 Direct Students in Applying Problem-Solving Techniques
- C-9 Employ the Project Method
- C-10 Introduce a Lesson
- C-11 Summarize a Lesson
- C-12 Employ Oral Questioning Techniques
- C-13 Employ Reinforcement Techniques
- C-14 Provide Instruction for Slower and More Capable Learners
- C-15 Present an Illustrated Talk
- C-16 Demonstrate a Manipulative Skill
- C-17 Demonstrate a Concept or Principle
- C-18 Individualize Instruction
- C-19 Employ the Team Teaching Approach
- C-20 Use Subject Matter Experts to Present Information
- C-21 Prepare Bulletin Boards and Exhibits
- C-22 Present Information with Models, Real Objects, and Flannel Boards
- C-23 Present Information with Overhead and Opaque Materials
- C-24 Present Information with Filmstrips and Slides
- C-25 Present Information with Films
- C-26 Present Information with Audio Recordings
- C-27 Present Information with Televised and Videotaped Materials
- C-28 Employ Programmed Instruction
- C-29 Present Information with the Chalkboard and Flip Chart

Category D: Instructional Evaluation
- D-1 Establish Student Performance Criteria
- D-2 Assess Student Performance: Knowledge
- D-3 Assess Student Performance: Attitudes
- D-4 Assess Student Performance: Skills
- D-5 Determine Student Grades
- D-6 Evaluate Your Instructional Effectiveness

Category E: Instructional Management
- E-1 Project Instructional Resource Needs
- E-2 Manage Your Budgeting and Reporting Responsibilities
- E-3 Arrange for Improvement of Your Vocational Facilities
- E-4 Maintain a Filing System
- E-5 Provide for Student Safety
- E-6 Provide for the First Aid Needs of Students
- E-7 Assist Students in Developing Self-Discipline
- E-8 Organize the Vocational Laboratory
- E-9 Manage the Vocational Laboratory
- E-10 Combat Problems of Student Chemical Use

Category F: Guidance
- F-1 Gather Student Data Using Formal Data-Collection Techniques
- F-2 Gather Student Data Through Personal Contacts
- F-3 Use Conferences to Help Meet Student Needs
- F-4 Provide Information on Educational and Career Opportunities
- F-5 Assist Students in Applying for Employment or Further Education

Category G: School-Community Relations
- G-1 Develop a School-Community Relations Plan for Your Vocational Program
- G-2 Give Presentations to Promote Your Vocational Program
- G-3 Develop Brochures to Promote Your Vocational Program
- G-4 Prepare Displays to Promote Your Vocational Program
- G-5 Prepare News Releases and Articles Concerning Your Vocational Program
- G-6 Arrange for Television and Radio Presentations Concerning Your Vocational Program
- G-7 Conduct an Open House
- G-8 Work with Members of the Community
- G-9 Work with State and Local Educators
- G-10 Obtain Feedback about Your Vocational Program

Category H: Vocational Student Organization
- H-1 Develop a Personal Philosophy Concerning Vocational Student Organizations
- H-2 Establish a Vocational Student Organization
- H-3 Prepare Vocational Student Organization Members for Leadership Roles
- H-4 Assist Vocational Student Organization Members in Developing and Financing a Yearly Program of Activities
- H-5 Supervise Activities of the Vocational Student Organization
- H-6 Guide Participation in Vocational Student Organization Contests

Category I: Professional Role and Development
- I-1 Keep Up-to-date Professionally
- I-2 Serve Your Teaching Profession
- I-3 Develop an Active Personal Philosophy of Education
- I-4 Serve the School and Community
- I-5 Obtain a Suitable Teaching Position
- I-6 Provide Laboratory Experiences for Prospective Teachers
- I-7 Plan the Student Teaching Experience
- I-8 Supervise Student Teachers

Category J: Coordination of Cooperative Education
- J-1 Establish Guidelines for Your Cooperative Vocational Program
- J-2 Manage the Attendance, Transfers, and Terminations of Co-op Students
- J-3 Enroll Students in Your Co-op Program
- J-4 Secure Training Stations for Your Co-op Program
- J-5 Place Co-op Students on the Job
- J-6 Develop the Training Ability of On-the-Job Instructors
- J-7 Coordinate On-the-Job Instruction
- J-8 Evaluate Co-op Students' On-the-Job Performance
- J-9 Prepare for Students' Related Instruction
- J-10 Supervise an Employer-Employee Appreciation Event

Category K: Implementing Competency-Based Education (CBE)
- K-1 Prepare Yourself for CBE
- K-2 Organize the Content for a CBE Program
- K-3 Organize Your Class and Lab to Install CBE
- K-4 Provide Instructional Materials for CBE
- K-5 Manage the Daily Routines of Your CBE Program
- K-6 Guide Your Students Through the CBE Program

Category L: Serving Students with Special/Exceptional Needs
- L-1 Prepare Yourself to Serve Exceptional Students
- L-2 Identify and Diagnose Exceptional Students
- L-3 Plan Instruction for Exceptional Students
- L-4 Provide Appropriate Instructional Materials for Exceptional Students
- L-5 Modify the Learning Environment for Exceptional Students
- L-6 Promote Peer Acceptance of Exceptional Students
- L-7 Use Instructional Techniques to Meet the Needs of Exceptional Students
- L-8 Improve Your Communication Skills
- L-9 Assess the Progress of Exceptional Students
- L-10 Counsel Exceptional Students with Personal-Social Problems
- L-11 Assist Exceptional Students in Developing Career Planning Skills
- L-12 Prepare Exceptional Students for Employability
- L-13 Promote Your Vocational Program with Exceptional Students

Category M: Assisting Students in Improving Their Basic Skills
- M-1 Assist Students in Achieving Basic Reading Skills
- M-2 Assist Students in Developing Technical Reading Skills
- M-3 Assist Students in Improving Their Writing Skills
- M-4 Assist Students in Improving Their Oral Communication Skills
- M-5 Assist Students in Improving Their Math Skills
- M-6 Assist Students in Improving Their Survival Skills

Category N: Teaching Adults
- N-1 Prepare to Work with Adult Learners
- N-2 Market an Adult Education Program
- N-3 Determine Individual Training Needs
- N-4 Plan Instruction for Adults
- N-5 Manage the Adult Instructional Process
- N-6 Evaluate the Performance of Adults

RELATED PUBLICATIONS

The Student Guide to Using Performance-Based Teacher Education Materials
The Resource Person's Guide to Using Performance-Based Teacher Education Materials
The Implementation Guide for Performance-Based Teacher Education & Competency-Based Staff Development Programs
Performance-Based Teacher Education: The State of the Art, General Education and Vocational Education

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For information regarding availability and prices of these materials contact—AAVIM, American Association for Vocational Instructional Materials, 120 Driftmier Engineering Center, The University of Georgia, Athens, Georgia 30602, (404) 542-2586.

Temple University
F/PBTE PROGRAM

Based on an earlier model—Program VITAL (Vocational Intern Teaching—Applied Learning) at Temple University (Philadelphia)—the F/PBTE program now available statewide in Pennsylvania is a completely field-based, performance-based program designed for vocational teachers entering the profession directly from business and industry. It is possible for an individual teacher to complete the initial program, and thus be eligible for provisional certification, in one year.

The F/PBTE program is fundamentally an individualized learning system that utilizes a variety of methods including (1) directed, individualized instruction; (2) instructional modules; (3) differentiated staffing; (4) team teaching; (5) helpful supervision; (6) self-evaluation; (7) video feedback; (8) criterion-referenced evaluation; and (9) assessment in an actual teaching situation.

Instructors-in-training are known as *interns* and are considered to be part of the staff since they are ultimately responsible for their own learning. Other levels of staff are as follows: A *resident resource person* (master teacher) and a *field resource person* (university staff member) work with the interns at their schools on a regular basis. A *senior teacher educator* coordinates the field-based teacher education program. A *Council of Educators*—consisting of an appointed representative of local administrators, a teacher educator, and an elected local teacher—reviews the work of each intern and makes the final decision about recommendation for certification.

Field resource persons are graduate students in the college of education. They are given special training for their roles through a series of 13 modules developed at Temple University and available to the profession. The training involves the development of counseling skills and attending behavior. Weekly staff meetings held on the university campus deal with current individual problems and provide additional training for field resource persons.

The initial instructional program is based on 30 carefully selected PBTE modules (see p. 70) and operates as follows:

1. The field resource person and intern determine the intern's needs and select modules accordingly from the program list.
2. The intern completes the first module in part or in total, again according to personal needs.
3. When the intern believes that the stated criteria for performance can be met, he/she attempts the final learning experience and evaluates his/her own performance.
4. When self-evaluation indicates successful performance, evidence of this is presented to a resource person.
5. The intern and resource person confer to determine whether the evidence (usually a videotape of the presentation or a written product) meets the required standards.
6. When all competencies have been achieved, evidence of the intern's overall teaching competence is presented to the Council of Educators for a decision regarding readiness for provisional certification.

The F/PBTE system encompasses programs for professional development beyond provisional certification as well. By successfully completing 18–30 additional PBTE modules, teacher interns can earn the professional credits necessary for permanent teacher certification. Credit hours toward a bachelor's degree may also be earned through completion of modules. Another offering is the CAPS (Classroom Application of Pedagogical Skills) Program, which is an inservice, permanent certification program for teachers of home economics. Interns must earn 24 credits beyond the B.S. degree. A pool of approximately 90 modules is used in the CAP Program.

A computerized management information system has been developed to assist the F/PBTE program coordinator and field resource persons in managing the data needed in carrying out their program responsibilities. Stored in memory is an up-to-date description of the personal and demographic characteristics of all interns and the staff members serving them, as well as a complete history of staff and intern activity since becoming active in the program. This information is provided to staff members through reports issued at specific intervals. These reports guide much of the staff's activity in serving the interns. Module inventory and control is totally computerized as well.

Modules in F/PBTE Program: Initial Level

B-1 Determine Needs and Interests of Students
B-2 Develop Student Performance Objectives
B-3 Develop a Unit of Instruction
B-4 Develop a Lesson Plan
B-5 Select Student Instructional Materials
B-6 Prepare Teacher-Made Instructional Materials
C-2 Conduct Group Discussions, Panel Discussions, and Symposiums
C-4 Direct Students in Instructing Other Students
C-6 Guide Student Study
C-7 Direct Student Laboratory Experience
C-8 Direct Students in Applying Problem-Solving Techniques
C-9 Employ the Project Method
C-10 Introduce a Lesson
C-11 Summarize a Lesson
C-12 Employ Oral Questioning Techniques
C-13 Employ Reinforcement Techniques
C-15 Present an Illustrated Talk
C-16 Demonstrate a Manipulative Skill
C-17 Demonstrate a Concept or Principle
C-21 Prepare Bulletin Boards and Exhibits
C-22 Present Information with Models, Real Objects, and Flannel Boards
C-23 Present Information with Overhead and Opaque Materials
C-29 Present Information with the Chalkboard and Flip Chart
D-1 Establish Student Performance Criteria
D-5 Determine Student Grades
E-5 Provide for Student Safety
E-8 Organize the Vocational Laboratory
E-9 Manage the Vocational Laboratory
G-7 Conduct an Open House
I -3 Develop an Active Personal Philosophy of Education

The University of Central Florida
PBTE PROGRAM

The University of Central Florida (UCF) in Orlando is one of nine universities in the state system of higher education. It is mandated to serve the needs of the entire central region of the state, which includes rapidly expanding urban areas, as well as several sparsely populated rural counties. The present vocational teacher education program comprises the trade and industrial and health occupations areas. Some 85 percent of those in the program are teachers on the job, recruited for the teaching profession directly from business, industry, and service occupations. They seek initial certification, as well as undergraduate and graduate degrees. Because of the considerable geographic area to be covered, instruction is delivered in four outlying centers.

Program Model

The UCF model for vocational teacher education is designed around groups of research-identified teaching competencies, selected and sequenced to foster the teacher's professional growth. University professional education courses are called *Competency Clusters,* and each includes a number of related competencies to be achieved. The cluster Essential Teaching Skills, designed to help teachers survive in the profession, must be completed first, but the other clusters may be completed in any order, depending on the individual teacher's needs. In the undergraduate program, there are eight clusters, which include a total of 48 required and 11 elective competencies:

- Essential Teaching Skills in Vocational Education
- Methods of Teaching Vocational Education Subjects
- Evaluation of Vocational Instruction
- Management of the Vocational Classroom and Laboratory
- Special Needs of Vocational Students
- Professional Role of the Vocational Teacher
- Principles and Practices of Vocational Education
- Advanced Teaching Techniques for Vocational Education

The program involves two partially concurrent stages: (1) the teacher achieves proficiency in all program competencies through the cognitive and practice levels, working within a university seminar setting; and (2) the teacher demonstrates final competence in selected competencies while working in an actual teaching situation. Criterion-based grades of *A, B,* or *C* are awarded to designate acceptable levels of teacher achievement, but lower levels of performance are not recorded, nor is credit given. Teachers may progress through a cluster at their own best rate and may "test out" on a competency by demonstrating the skill and meeting the final assessment criteria.

In the Advanced Certificate and Graduate Program, all clusters are of variable credit, with the teacher building an entirely personalized program of specific competencies.

Instruction

There are three basic elements in the instructional program: the PBTE instructional modules, seminar sessions devoted to each module, and individualized instruction and counseling. Mainstays of instruction are the National Center's PBTE modules, though some additional modules unique to Florida's needs have been developed by UCF project staff. The modules are used just as designed, with readings, teacher feedback, simulations, practice, and final performance. The UCF program does not include typical quizzes, term papers, book reports, or final examinations.

The weekly cluster seminar is vital to the achievement of the teacher and the success of the program. Scheduled in advance, each seminar focuses on one specific module and the competencies it covers. Attendance is expected. In the seminar, the teacher educator/resource person may provide enrichment or situation-specific information, clarify ideas, answer questions, bring in additional resources, and/or observe and assess practice performances.

Teleconferencing is also a feature of the program, and it is used for two purposes: (1) to allow teachers who live in distant or isolated areas to enroll in the program, participate in the seminar sessions, and yet work independently at their home bases; and (2) to bring in by telephone special resource persons to enrich instruction.

Individual conferences are held as needed to help teachers overcome specific obstacles to competency achievement.

Assessment

Teacher assessment takes place in two phases: in the seminar and in an actual teaching situation. As teachers work to achieve a competency within the seminar setting, they present a specified performance (e.g., demonstrate a manipulative skill to a group of peers) or produce a specified product (e.g., develop a safety handbook for an occupational area) appropriate to the competency. The results are assessed by the resource person using checklist criteria known to the teacher. The product or performance must meet the *Good* or *Excellent* level on each criterion; otherwise, the teacher must recycle until that level is achieved.

Later, at a time arranged by the teacher, the teacher demonstrates the competency in an actual teaching situation, usually involving his/her own students and class setting. Assessment of the performance is usually done by school personnel (e.g., dean of instruction, area supervisor, or instructional specialist) serving as field resource persons, with training and supervision provided by the university.

Attachment D

Albuquerque Technical-Vocational Institute
PROFESSIONAL DEVELOPMENT PLAN

At the Albuquerque (New Mexico) Technical-Vocational Institute (T-VI), all the CBSD concepts and materials are integrated into a comprehensive Professional Development Plan ((PDP). New instructors who have not completed a preservice teacher education program are required to become proficient in a specified series of teaching competencies. Since there are no certification requirements for faculty at T-VI, this program of training provides the learning experiences needed for an instructor to function successfully in the classroom and laboratory.

A program of 41 modules (see p. 76) must be completed during the first two years of employment; this forms the basic instructional skills phase of the PDP. The delivery system is a combination of formal course work and individual or group work. The courses are held at T-VI and are taught jointly by teacher educators from the University of New Mexico (UNM) and T-VI staff.

T-VI maintains a contract for professional services with UNM, which provides for a teacher educator to be on the T-VI campus one day a week to assist with the PDP. Resource person training is also conducted in cooperation with university teacher educators. The PDP is administered through regular T-VI administrative procedures.

Resource persons are master teachers who volunteer to serve in this role. They receive PDP credit for their activities. Instructors have a choice in selecting the resource persons with whom they will work. All the skills learned in the program are used in regular T-VI classes, with the instructor's performance being assessed by a resource person observing the actual teaching situation.

The resource center is an integral part of the professional development program. It is the center for individual study and group discussion. Housed in the resource center are all the necessary instructional materials, both purchased and internally developed. File boxes are organized according to teaching competencies, and each contains the teacher education module, media materials, and print materials related to a given competency.

Of particular interest are the slide/tape presentations on teaching skills that have been developed by T-VI instructors. When instructors are learning about a particular teaching skill (e.g., presenting information with films), they also learn the related T-VI policies and procedures (e.g., how to order films and schedule audiovisual equipment). This enables instructors who are learning a competency to apply it directly to their teaching role at Albuquerque T-VI.

PDP Modules: Basic Instructional Skills Phase

B-1 Determine Needs and Interests of Students
B-3 Develop a Unit of Instruction
B-4 Develop a Lesson Plan
B-5 Select Student Instructional Materials
B-6 Prepare Teacher-Made Instructional Materials
C-1 Direct Field Trips
C-2 Conduct Group Discussions, Panel Discussions, and Symposiums
C-3 Employ Brainstorming, Buzz Group, and Question Box Techniques
C-4 Direct Students in Instructing Other Students
C-5 Employ Simulation Techniques
C-6 Guide Student Study
C-7 Direct Student Laboratory Experience
C-8 Direct Students in Applying Problem-Solving Techniques
C-9 Employ the Project Method
C-10 Introduce a Lesson
C-11 Summarize a Lesson
C-12 Employ Oral Questioning Techniques
C-13 Employ Reinforcement Techniques
C-14 Provide Instruction for Slower and More Capable Learners
C-15 Present an Illustrated Talk
C-16 Demonstrate a Manipulative Skill
C-17 Demonstrate a Concept or Principle
C-23 Present Information with Overhead and Opaque Materials
C-24 Present Information with Filmstrips and Slides
C-25 Present Information with Films
C-26 Present Information with Audio Recordings
C-29 Present Information with the Chalkboard and Flip Chart
D-1 Establish Student Performance Criteria
D-2 Assess Student Performance: Knowledge
D-3 Assess Student Performance: Attitudes
D-4 Assess Student Performance: Skills
D-5 Determine Student Grades
D-6 Evaluate Your Instructional Effectiveness
E-5 Provide for Student Safety
E-6 Provide for the First Aid Needs of Students
E-8 Organize the Vocational Laboratory
E-9 Manage the Vocational Laboratory
F-3 Use Conferences to Help Meet Student Needs
F-5 Assist Students in Applying for Employment or Further Education
G-8 Work with Members of the Community
I -3 Develop an Active Personal Philosophy of Education
I -5 Obtain a Suitable Teaching Position

Holland College
STAFF DEVELOPMENT PROGRAM

Holland College (Prince Edward Island, Canada) has a strong staff development program that involves all staff members (administrative, instructional, and support) throughout their terms of employment at the college. The principles and procedures of the program are consistent with those of the regular competency-based vocational training programs of the institution. Thus, new instructors use the same approach to learn teaching skills as their students use to learn occupational skills.

Just as in all the training programs at Holland College, the competencies for the instructor development program have been identified through the use of a DACUM analysis—in this case, analysis of the competencies needed by the faculty of the college. The analysis is in the form of a Learning Management profile chart, which in its latest form lists 251 competencies. The chart is reviewed and revised every three years. The competencies are to a great extent parallel with those on which the National Center's PBTE modules are based.

The college certificates its own instructors. New instructors have three years to achieve the Learning Management competencies at a minimal level; if they do not, their contracts are not renewed. Some new instructors have acquired a number of instructional skills through previous training, employment, or life experience. A new instructor first goes over the entire chart and rates his/her level of proficiency in each competency using the college's standard staff development rating scale:

0 Has some knowledge and limited experience, but not sufficient for participation in a work environment.

1 Can perform some parts of the skill satisfactorily, but requires instruction and supervision to perform the entire skill.

2 Can perform this skill satisfactorily, but requires **periodic** supervision and/or assistance.

3 Can perform this skill satisfactorily **without** assistance and/or supervision.

4 A Can perform this skill **without** supervision or assistance *with proficiency in speed and quality.*

B Can perform this skill **without** supervision or assistance *with initiative and adaptability to special problem situations.*

C Can perform this skill **without** supervision or assistance *and can lead others in performing it.*

The department head is responsible for the continued professional progress of instructors in his/her department and serves as one of the resource persons available to the instructors. The staff development director assists instructors in selecting a program of competencies, locating instructional materials, forming work groups, and so forth.

As a new instructor begins the staff development process, he/she makes out a learning plan. This form contains space for listing several competencies and estimated completion times, and it is signed by the instructor and a staff development person, forming a kind of contract. Instructors usually work on several related competencies at the same time, rather than on single competencies in succession.

The first competencies selected are heavily slanted to the needs of the instructor as he or she perceives those needs (even if staff development personnel perceive otherwise). In this way, the instructor is more likely to have early success and more likely to think of the program as self-directed. At Holland College, among the first competencies needed are those dealing with orienting students to the college's individualized learning system: the Self-Training and Evaluation Process (S.T.E.P.).

As the instructor gains self-confidence, staff tend to exert more influence on the instructor's selection of competencies, basing decisions on observations of the instructor's performance and the progess of his/her students. The selection process is basically informal—conferences and counseling—rather than data-based; feedback forms, computer data, and the like, are not used.

The instructor's progress is monitored by the staff development office. If the contracted date for completing a learning plan is missed, the staff development director confers with the instructor to identify the problem and formulate a solution. If completion dates are consistently missed or progress is slow, the department head is brought into the situation to recommend a course of action. As each learning plan is completed, a new one is designed. When all competencies have been at least minimally achieved, the instructor then plans a program for achieving the competencies at higher performance levels, ad infinitum.

Assessment of the instructor's competence is done by a resource person, using the standard rating scale previously described. The resource person may be a staff development person, a department head, or another instructor. There is no failure; the instructor earns a rating that represents the level he/she has achieved, and this rating can be raised at a later time. Over time, ratings may, however, go down as well as up.

The instructional materials for staff development are handled as in all other instructional programs at the college. There is a file box for each competency, and there is a Holland College module for each competency in the box. The National Center's modules, videotapes, slide/tapes, articles, and so forth, are used as supplementary resource materials. There is also a small professional library in the resource center for staff development. The resource center is an attractive place, with desks, tables for discussions, reading chairs, and media hardware.